



Hetch Hetchy Power Green Tariff

Rate Fairness Board Presentation

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Agenda

- 1) What is a Green Tariff?
- 2) Why should Hetch Hetchy Power (HHP) offer a Green Tariff?
- 3) Key Features of the proposed HHP Green Tariff
- 4) HHP Green Tariff recommendation



What is a “Green Tariff”?

- Common rate option for California utilities; offers a generation portfolio of renewable energy resources
- “Renewable Energy” for a Green Tariff in California typically means generation is eligible under the state’s Renewable Portfolio Standard (RPS)
- Green Tariff Examples
 - PG&E’s Solar Choice, CleanPowerSF’s SuperGreen, LADWP’s GreenPower



Why Offer a “Green Tariff”?

Current Status: Hetch Hetchy Power generation is all labeled and sold as Greenhouse-Gas-Free (GHG-free)

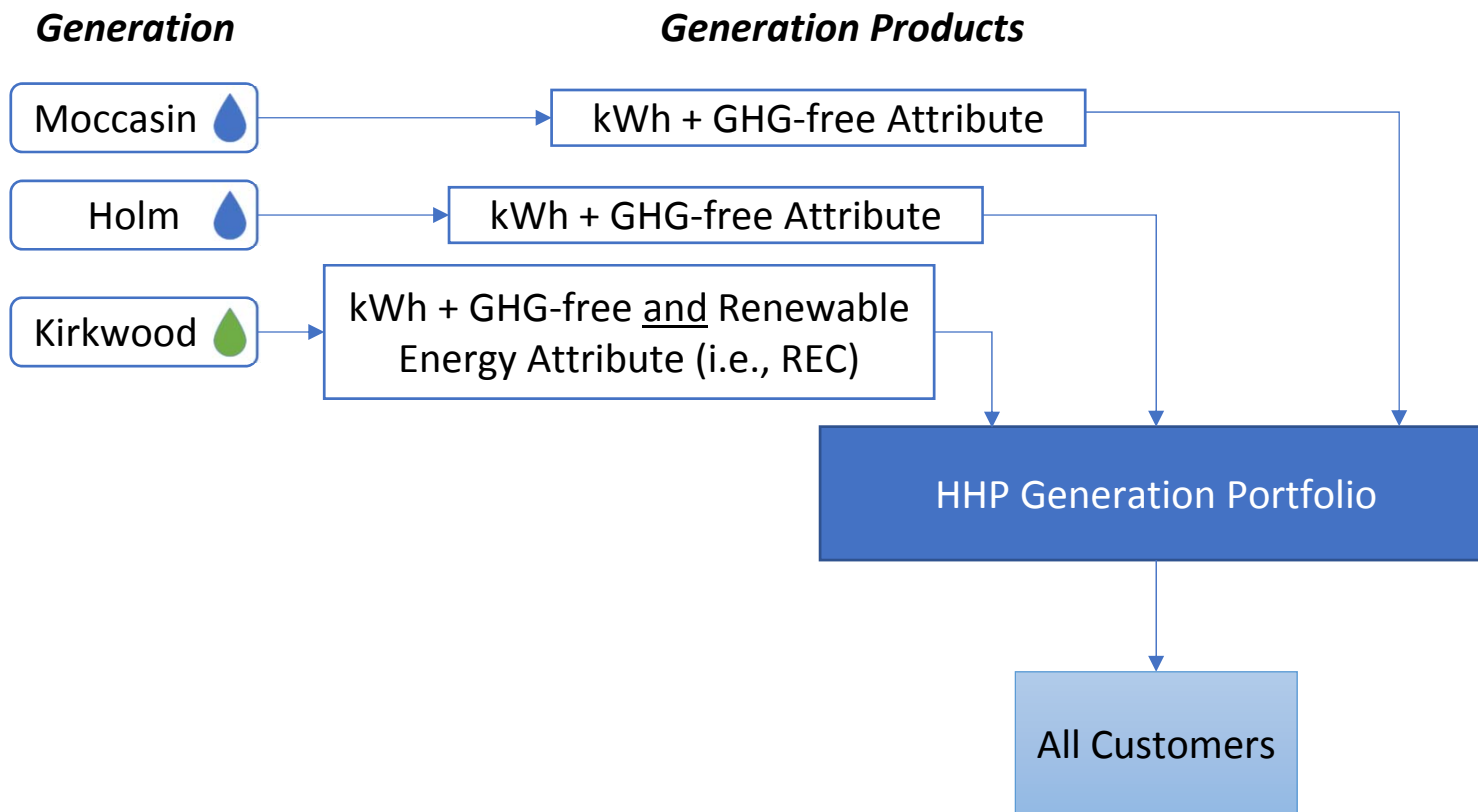
Proposed Hetch Hetchy Power Green Tariff:

- Aligns with SFPUC and City mission
- Responds to customer requests and improves competitiveness of utility services
- Maximizes value of Hetch Hetchy generation resources



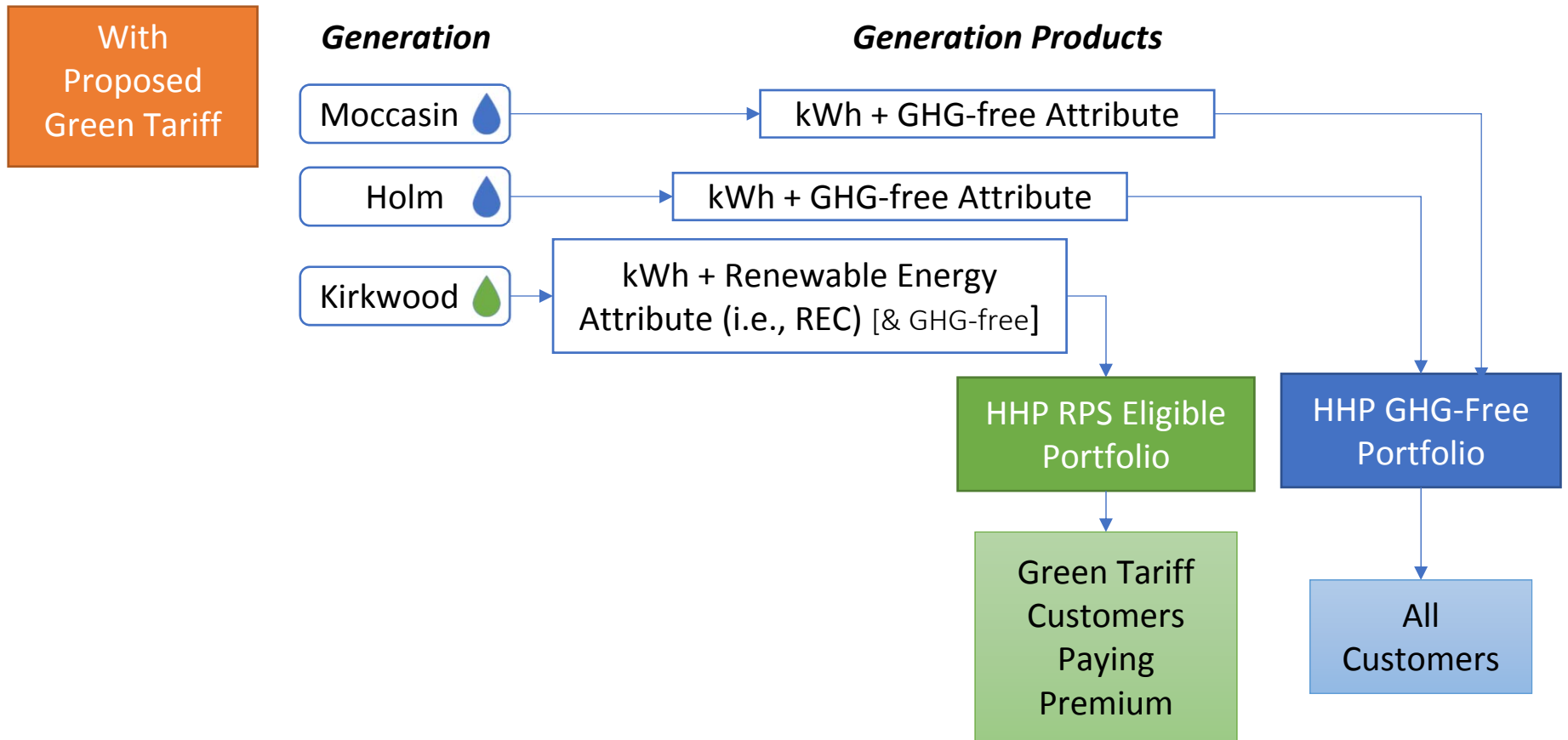
Hetch Hetchy Power Green Tariff Maximizes Value of Resources

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Hetch Hetchy Power Green Tariff Maximizes Value of Resources





HHP Green Tariff Key Features

- Generation portfolio 100% RPS-eligible
- Kirkwood generation to be source
- Open to all HHP customers
 - With special treatment for accounts participating in state's Low Carbon Fuel Standard Program
- Total tariff enrollment capped at 200,000 megawatt-hours (MWh) per year (200 million kWh); first come, first served
- Premium rate of \$0.008 per kilowatt-hour (kWh) above customer's otherwise applicable rate



Initial Program Size Cap

Capped at 200,000 MWh/year

- Sizes program to ensure HHP meets its Renewable Portfolio Standard (RPS) requirements, AB1110, and City GHG policies with current year resources (except for drought years)
- Assumes most Green Tariff program participation will come from existing customers
- Unlikely to require additional RPS purchases
 - Contingency plan would be California-based “bucket-1” renewable energy purchases



HHP Green Tariff Rate

Price: \$0.008/kWh (above otherwise applicable rate)

Rate Component	\$/kWh	Description
Attribute Value	.007	Market value of the GHG-free attributes
Administrative Charge	.001	HHP costs to administer program – planning, marketing, WREGIS fees, regulatory
Total Premium	.008	Sum of all costs

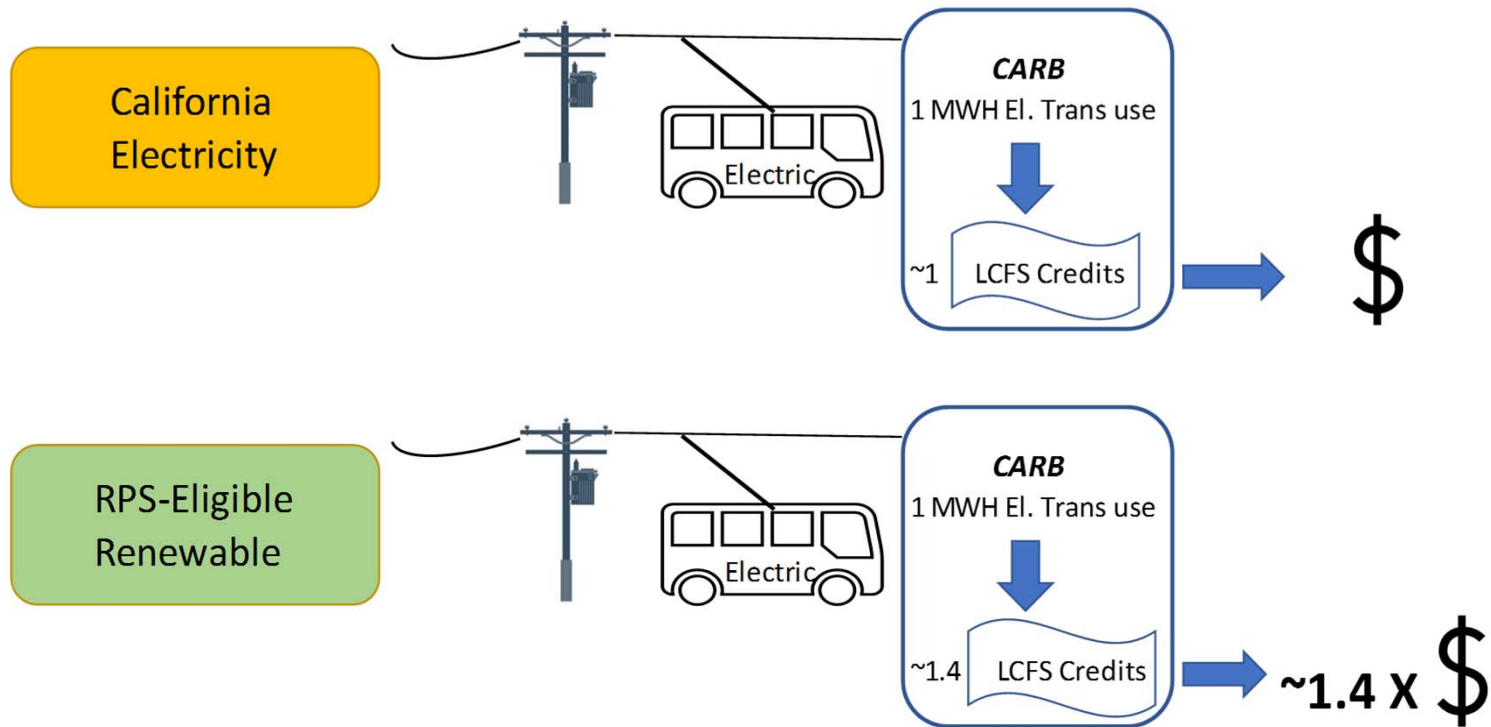
Premium charge is comparable to other investor-owned utilities and publicly-owned utilities.



Synergy with Low Carbon Fuel Standard

- California Air Resources Board's (CARB's) *Low Carbon Fuel Standard* (LCFS) program incentivizes transportation electrification by awarding saleable LCFS Credits.
- Green Tariff source electricity increases LCFS credits by ~40%.

Synergy with Low Carbon Fuel Standard





Green Tariff Treatment of LCFS Partners

For all municipal accounts participating in California's Low Carbon Fuel Standard (LCFS) program

- Green Tariff cost premium waived if memorandum of understanding (MOU) signed with SFPUC to share revenues from LCFS credit sales.
 - GUSE Customers: 50% share of LCFS credit sales
 - Enterprise Departments: 20% share of LCFS credit sales



Potential Hetch Hetchy Power Financial Impact

Estimated Potential Revenue

Customer	Type of Customer	Green Tariff Energy Sales (kWh/year)	Green Tariff Premium @ \$0.008/kWh	LCFS Revenue Sharing
SFMTA	LCFS	80,000,000	waived	Year 1 ~\$6.5M (70k credits @ \$185/credit, 50% share); Ongoing ~\$2M/year (27k credits @ \$125-\$150/credit, 50% share)
Others	Non-LCFS	120,000,000	~\$1M annually*	n/a

*Assumes sufficient demand and Kirkwood supply



Recommendation

- Staff recommends SFPUC Commission adopt Hetch Hetchy Power's Green Tariff at a January Commission Hearing
- RFB requested to support staff recommendation on Hetch Hetchy Power Green Tariff

Background Slides



IOU Example Green Tariff Incremental Charges by \$/MWh

Charge, \$/MWh	SCE	PG&E	SDG&E
Renewable Power Rate (RPR)	67.18	64.8	62
PCIA	9.7 to 16	23.75 to 30.19	0 to 26.13
Generation Credit ¹	(60 to 90)	(90 to 120)	(71.93 to 110.47)
Other Program Charges	19.93	21.18 to 29.56	9.95
CAISO Grid	0.49		0.71
WREGIS Charges	0.01		0.01
Resource Adequacy (RA) Adjustment	6.95		N/A
Program Administration Charge	6.99	9.22	3.85
Renewables Integration Cost Charge			4.21
Marketing Charge	5.49	9.09	1.17
Other		2.87 to 11.25	
Net Impact - 2019 Vintage	15.68 to 44.77	(0.4) to 16.1	(1.47) to 10.72

1. PCIA included in generation credit.



POU Example Green Tariff Incremental Charges by \$/MWh

Silicon Valley Power	Santa Clara Green Power	Residential/Small Commercial: \$15/MWh Medium/Large Comm.: \$15/MWh block; >804 MWh/yr, \$4.75/MWh
Los Angeles Department of Water and Power (LADWP)	Green Power	\$30 more/MWh
SMUD	Greenergy	Residential: \$3 flat fee for 50% or \$6 flat fee for 100% Commercial: - Greenergy Partner (Western): \$5/MWh - Greenergy Partner Plus (local): \$10/MWh - Contact for a price quote
City of Palo Alto (CPAU)	Green Power Program	\$2 more/MWh, or \$2 per 1,000 kWh block (this is PCC 3 Green-e product)



Historical Kirkwood Generation

Year	Generation, MWh
2014	309,396
2015	267,489 (LOW)
2016	570,704 (HIGH)
2017	524,267
2018	439,151
5-YEAR AVERAGE	422,201